Fig. 1

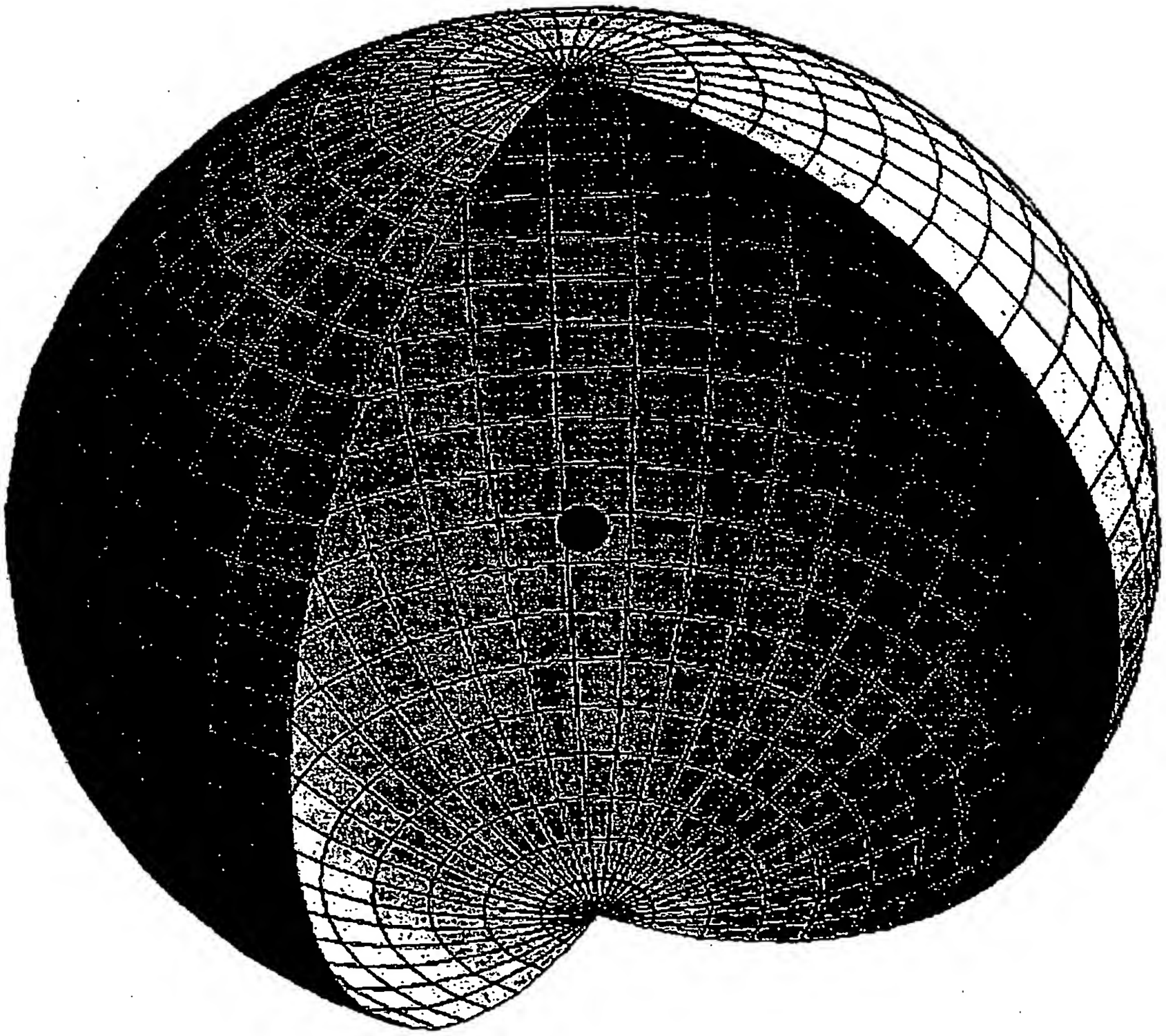


Fig. 2

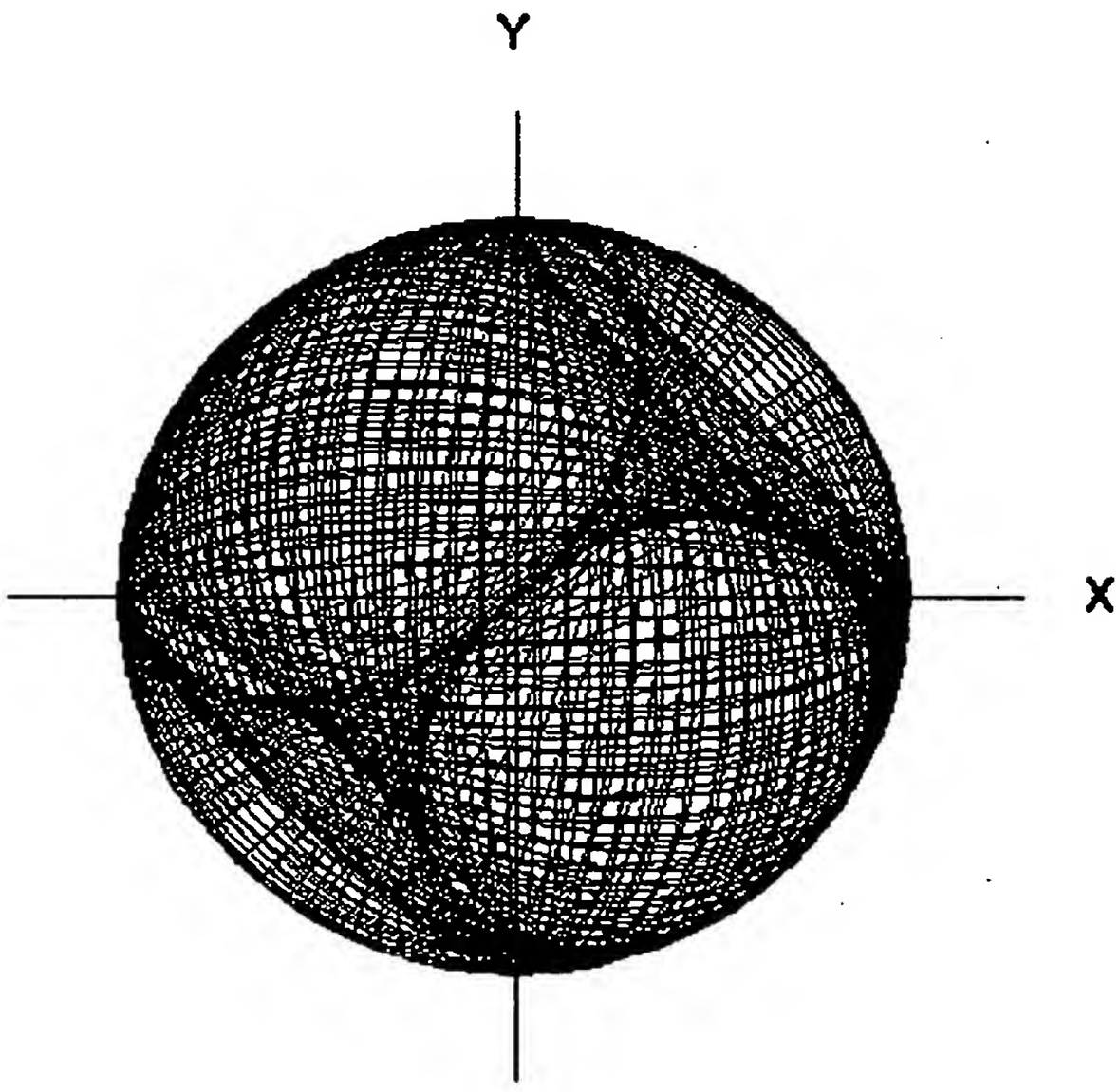
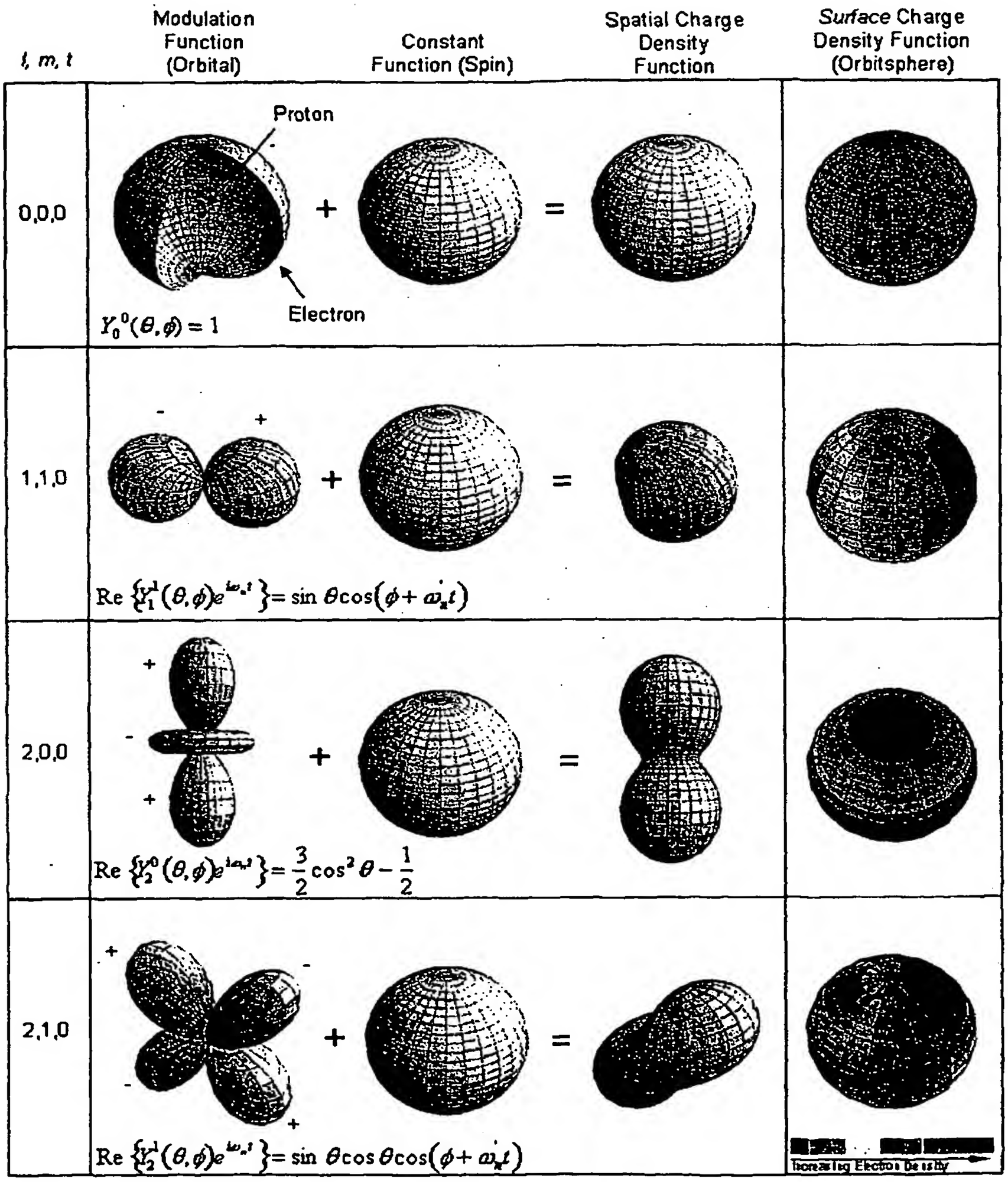


Fig. 3


l, m, t
Modulation Function (Orbital)
Constant Function (Spin)
Spatial Charge Density Function
Surface Charge Density Function (Orbitsphere)
0,0,0
Proton
Electron
$Y_0^0(\theta,\phi)=1$
1,1,0
$\mathrm{Re}\left\{Y_1^1(\theta,\phi)e^{i\omega_s t}\right\}=\sin\theta\cos(\phi+\omega_s t)$
2,0,0
$\mathrm{Re}\left\{Y_2^0(\theta,\phi)e^{i\omega_s t}\right\}=\frac{3}{2}\cos^2\theta-\frac{1}{2}$
2,1,0
$\mathrm{Re}\left\{Y_2^1(\theta,\phi)e^{i\omega_s t}\right\}=\sin\theta\cos\theta\cos(\phi+\omega_s t)$
Increasing Electron Density

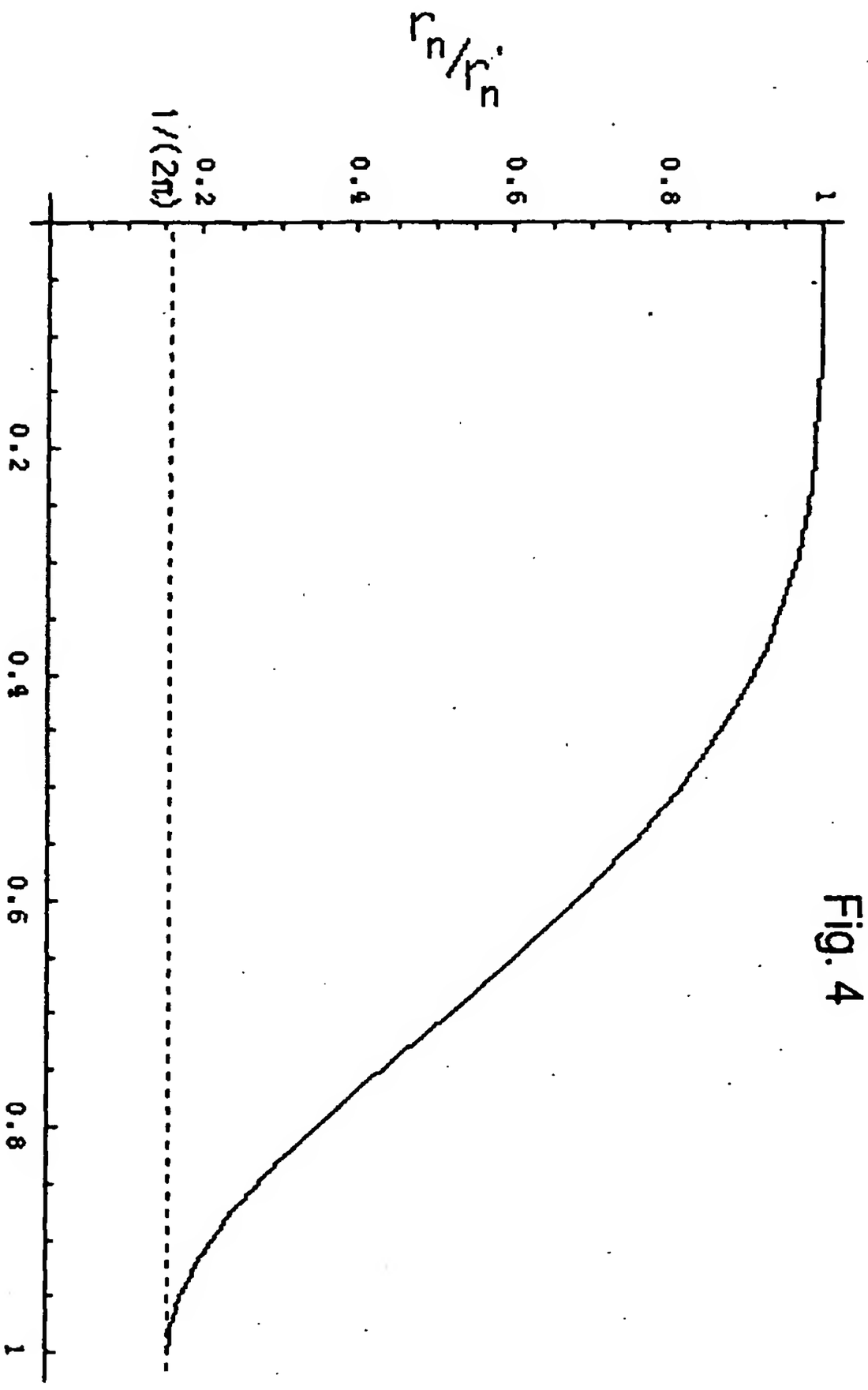


Fig. 4

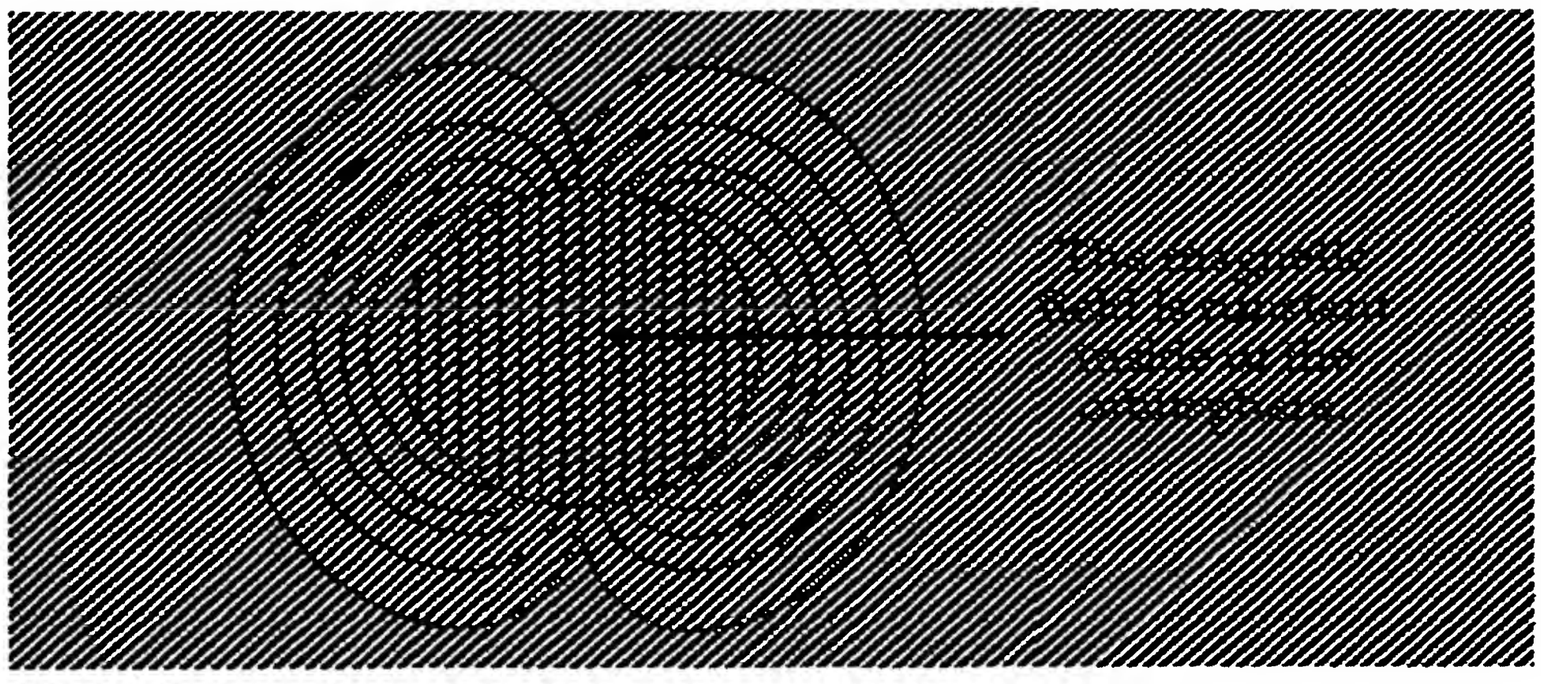



Fig. 5